AMENDMENTS TO THE CLAIMS

Claims 1-65 (Canceled)

66. (Currently Amended) A method of making a pultruded part having a uniform cross-section, the method comprising the steps of:

orienting a plurality of longitudinal rovings along a longitudinal axis of a pultrusion die;

providing a reinforcing structure comprising a permeable transport web of staple fibers attached to a plurality of first reinforcing fibers oriented in a direction transverse to the longitudinal axis, a plurality of second reinforcing fibers at a first acute angle relative to the longitudinal axis, and a plurality of third reinforcing fibers at a second acute angle that is generally the negative of the first acute angle, so that the portion of the reinforcing fibers oriented in the direction generally transverse to the longitudinal direction comprises at least 40% of a total volume of materials comprising the reinforcing structure;

shaping the reinforcing structure to generally conform with a profile of the pultrusion die;

combining a resin matrix with the longitudinal rovings and the reinforcing structure in the pultrusion die so that the longitudinal rovings and the reinforcing structure are substantially surrounded by the resin matrix;

at least partially curing the resin matrix in the pultrusion die; and

pulling the pultruded part from the pultrusion die.

67. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises arranging a plurality of fourth reinforcing fibers parallel to the longitudinal axis.

68. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises locating the first reinforcing fibers between the second and third reinforcing fibers.

69. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises preparing the first, second, and third reinforcing fibers as discrete layers.

70. (Currently amended) The method of claim 66 comprising bonding the permeable transport web to the first and second reinforcing fibers so that the reinforcing structure has a thickness of about 0.020 inches ~~or less~~.

71. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises preparing the reinforcing structure to have substantially in-plane mechanical and directional stability.

72. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises randomly entangling at least a portion of fibers in the permeable transport web with the first, second and third reinforcing fibers.

73. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises thermally bonding at least a portion of fibers in the permeable transport web with the first, second and third reinforcing fibers.

74. (Previously presented) The method of claim 66 comprising attaching the first, second and third reinforcing fibers in a spaced-apart configuration with a continuous stitching fiber.

75. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises applying a binder to the permeable transport web and the first, second and third reinforcing fibers.

76. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises forming a plurality of perforations through the permeable transport web and between the first, second and third reinforcing fibers.

77. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises preparing the permeable transport web with a permeability of at least 180 ft^3/minute/ft^2 as measured according to the procedure of ASTM D737-96 with a pressure differential of about 0.5 inch column of water.

78. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises preparing the permeable transport web with a circular bending stiffness of at least about 4 Newtons as measured according to the procedure of ASTM D4032-94.

79. (Previously presented) The method of claim 66 wherein the step of providing the reinforcing structure comprises selecting the first, second and third reinforcing fibers from a group consisting of glass fibers, natural fibers, carbon fibers, metal fibers, ceramic fibers, synthetic or polymeric fibers, composite fibers (including one or more components of glass, natural materials, metal, ceramic, carbon, and/or synthetics components), or a combination thereof.

80. (Previously presented) The method of claim 66 comprising the step of attaching the reinforcing structure to the longitudinal rovings prior to combining with the resin matrix.

81. (Previously presented) The method of claim 66 comprising the step of positioning a plurality of longitudinal rovings along each surface of the reinforcing structure prior to combining with the resin matrix.

82. (Previously presented) The method of claim 66 comprising the step of positioning the reinforcing structure adjacent to at least one surface of the pultruded part.

83. (Previously presented) The method of claim 66 comprising the step of positioning the longitudinal rovings adjacent to at least one surface of the pultruded part.

84. (Previously presented) The method of claim 66 comprising the step of arranging alternating layers of reinforcing structure and longitudinal rovings prior to combining with the resin matrix.

85. (Currently amended) A method of making a pultruded part having a uniform cross-section, the method comprising the steps of:

orienting a plurality of longitudinal rovings along a longitudinal axis of a pultrusion die;

providing a reinforcing structure comprising the steps of;

arranging a plurality of first reinforcing fibers in a direction generally transverse to the longitudinal axis in a generally planar, non-overlapping configuration so that the first reinforcing fibers do not extend over or cover one another;

arranging a plurality of second reinforcing fibers in a direction different than the direction of the first reinforcing fibers and in a generally planar, non-

overlapping configuration so that the second reinforcing fibers do not extend over or cover one another;

bonding a permeable transport web of staple fibers to the first and second reinforcing fibers to provide longitudinal strength, shear strength and anti-skew properties sufficient to substantially maintain the relative orientations of the first and second reinforcing fibers when subjected to the pulling forces encountered during pultrusion, so that the reinforcing structure has a thickness of about 0.004 inches to about 0.020 inches and the portion of the reinforcing fibers oriented in the direction generally transverse to the longitudinal direction comprises at least 40% of a total volume of materials comprising the reinforcing structure;

shaping the reinforcing structure to generally conform with a profile of the pultrusion die;

combining a resin matrix with the longitudinal rovings and the reinforcing structure in the pultrusion die so that the longitudinal rovings and the reinforcing structure are substantially surrounded by the resin matrix;

at least partially curing the resin matrix in the pultrusion die; and

pulling the pultruded part from the pultrusion die.

86. (Previously presented) The method of claim 85 wherein the step of arranging a plurality of third reinforcing fibers in a direction different than the direction of the first and second reinforcing fibers and in a generally planar, non-overlapping configuration so that the third reinforcing fibers do not extend over or cover one another;

87. (Canceled)

88. (Previously presented) The method of claim 85 wherein the step of providing the reinforcing structure comprises randomly entangling at least a portion of fibers in the permeable transport web with the first and second reinforcing fibers.

89. (Previously presented) The method of claim 85 wherein the step of providing the reinforcing structure comprises thermally bonding at least a portion of fibers in the permeable transport web with the first and second reinforcing fibers.

90. (Previously presented) The method of claim 85 comprising attaching the reinforcing fibers in a spaced-apart configuration with a continuous stitching fiber.

91. (Previously presented) The method of claim 85 wherein the step of providing the reinforcing structure comprises applying a binder to the permeable transport web and the first and second reinforcing fibers.

92. (Previously presented) The method of claim 85 wherein the step of providing the reinforcing structure comprises forming a plurality of perforations through the permeable transport web and between the first and second reinforcing fibers.

93. (Previously presented) The method of claim 85 wherein the step of providing the reinforcing structure comprises preparing the permeable transport web with a permeability of at least 180 ft^3/minute/ft^2 as measured according to the procedure of ASTM D737-96 with a pressure differential of about 0.5 inch column of water.

94. (Previously presented) The method of claim 85 wherein the step of providing the reinforcing structure comprises preparing the permeable transport web with a circular bending stiffness of at least about 4 Newtons as measured according to the procedure of ASTM D4032-94.

95. (Previously presented) The method of claim 85 wherein the step of providing the reinforcing structure comprises selecting the first and second reinforcing fibers from a group consisting of glass fibers, natural fibers, carbon fibers, metal

fibers, ceramic fibers, synthetic or polymeric fibers, composite fibers (including one or more components of glass, natural materials, metal, ceramic, carbon, and/or synthetics components), or a combination thereof.

96. (Previously presented) The method of claim 85 comprising the step of attaching the reinforcing structure to the longitudinal rovings prior to combining with the resin matrix.

97. (Previously presented) The method of claim 85 comprising the step of positioning a plurality of longitudinal rovings along each surface of the reinforcing structure prior to combining with the resin matrix.

98. (Previously presented) The method of claim 85 comprising the step of positioning the reinforcing structure adjacent to at least one surface of the pultruded part.

99. (Previously presented) The method of claim 85 comprising the step of positioning the longitudinal rovings adjacent to at least one surface of the pultruded part.

100. (Previously presented) The method of claim 85 comprising the step of arranging alternating layers of reinforcing structure and longitudinal rovings prior to combining with the resin matrix.

101. (Currently amended) A method of making a pultruded part having a uniform cross-section, the method comprising the steps of:

providing a reinforcing structure comprising the steps of:

arranging a plurality of first reinforcing fibers in a direction generally transverse to a longitudinal axis of a pultrusion die in a generally planar, non-

overlapping configuration so that the first reinforcing fibers do not extend over or cover one another;

arranging a plurality of second reinforcing fibers along the longitudinal axis and in a generally planar non-overlapping configuration so that the second reinforcing fibers do not extend over or cover one another; and

bonding a permeable transport web of staple fibers to the first and second reinforcing fibers to provide longitudinal strength, shear strength and anti-skew properties sufficient to substantially maintain the relative orientations of the first and second reinforcing fibers when subjected to the pulling forces encountered during pultrusion, so that the reinforcing structure has a thickness of about 0.004 inches to about 0.020 inches and the portion of the reinforcing fibers oriented in the direction generally transverse to the longitudinal direction comprises at least 40% of a total volume of materials comprising the reinforcing structure;

shaping the reinforcing structure to generally conform with a profile of the pultrusion die;

combining a resin matrix with the ~~longitudinal rovings and~~ the reinforcing structure in the pultrusion die so that ~~he longitudinal rovings and~~ the reinforcing structure is ~~are~~ substantially surrounded by the resin matrix;

at least partially curing the resin matrix in the pultrusion die; and

pulling the pultruded part from the pultrusion die.

102. (Canceled)

103. (Previously presented) The method of claim 101 wherein the step of providing the reinforcing structure comprises randomly entangling at least a portion of fibers in the permeable transport web with the first and second reinforcing fibers.

104. (Previously presented) The method of claim 101 wherein the step of providing the reinforcing structure comprises thermally bonding at least a portion of fibers in the permeable transport web with the first and second reinforcing fibers.

105. (Previously presented) The method of claim 101 comprising attaching the reinforcing fibers in a spaced-apart configuration with a continuous stitching fiber.

106. (Previously presented) The method of claim 101 wherein the step of providing the reinforcing structure comprises applying a binder to the permeable transport web and the first and second reinforcing fibers.

107. (Previously presented) The method of claim 101 wherein the step of providing the reinforcing structure comprises forming a plurality of perforations through the permeable transport web and between the first and second reinforcing fibers.

108. (Previously presented) The method of claim 101 comprising the step of attaching the reinforcing structure to a plurality of longitudinal rovings oriented along the longitudinal axis of the pultrusion die.

109. (Previously presented) The method of claim 101 wherein the step of providing the reinforcing structure comprises selecting the first and second reinforcing fibers from a group consisting of glass fibers, natural fibers, carbon fibers, metal fibers, ceramic fibers, synthetic or polymeric fibers, composite fibers (including one or more components of glass, natural materials, metal, ceramic, carbon, and/or synthetics components), or a combination thereof.

110. (Previously presented) The method of claim 101 comprising the step of positioning the reinforcing structure adjacent to at least one surface of the pultruded part.

111. (New) A method of making a pultruded part having a uniform cross-section, the method comprising the steps of:

orienting a plurality of longitudinal rovings along a longitudinal axis of a pultrusion die;

providing a reinforcing structure comprising a permeable transport web of staple fibers attached to a plurality of first reinforcing fibers oriented in a direction transverse to the longitudinal axis, a plurality of second reinforcing fibers at a first acute angle relative to the longitudinal axis, and a plurality of third reinforcing fibers at a second acute angle that is generally the negative of the first acute angle, so that the reinforcing structure has a thickness of about 0.004 inches to about 0.020 inches;

shaping the reinforcing structure to generally conform with a profile of the pultrusion die;

combining a resin matrix with the longitudinal rovings and the reinforcing structure in the pultrusion die so that the longitudinal rovings and the reinforcing structure are substantially surrounded by the resin matrix;

at least partially curing the resin matrix in the pultrusion die; and

pulling the pultruded part from the pultrusion die.